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EDITORIALS

Non-Calculous Biliary Tract Disturbances

Persistent symptoms, presumably arising from the extrahepatic biliary tract and not associated with cholelithiasis, constitute a perplexing clinical problem. Cases presenting symptoms of this type have been grouped by some physicians under the designation of "stoneless gallbladder." This possesses the merit of reflecting recognition of the uselessness of cholecystectomy in the absence of gallstones, with only a few exceptions. Actual coexistence of these disturbances and cholelithiasis accounts for some of the poor results following adequate surgery for gallstones. This is well demonstrated by the fact that when common duct exploration is done on a group of cases because of persistent symptoms after cholecystectomy, those without previous stones are usually not helped, and of those who previously had stones and who have common duct stones at the time of the second operation, a few may have persistent symptoms after removal of these stones.

The term "post cholecystectomy syndrome" implies the exclusion of certain important lesions. It must be known that the cystic duct has not been converted into a "re-formed gallbladder" and that stenosis of the papilla does not exist. Also, a complete exploration of the abdomen, especially for hiatus hernia and chronic pancreatitis, should have established the absence of coexistent lesions. Neurosis may have simulated gallbladder disease or may have been associated with it and modified the result. Residual postoperative symptoms may therefore be due to obscure or functional disturbances antedating the surgery. Frequently they are suspected before surgery is contemplated. In some such instances disturbed cholesterol metabolism has been thought to be at fault, others have been classified as instances of biliary dyskinesia.

The biliary tract is extensively involved in fat metabolism. Ingested fat greatly influences the motor

functions of the gallbladder. The bile contains the bile salts necessary for absorption of digested fats, and the absorbed fats are processed in the liver. Lipid fractions in the plasma such as neutral fats, fatty acids, phospholipids, cholesterol esters and free cholesterol, are all resultant substances, with important inter-relationships. Free cholesterol is excreted into the bile. Its crystals are found in nearly all gallstones, and are characteristically seen in the bile in instances of cholesterosis of the gallbladder, although the deposits in the gallbladder mucosa in cholesterosis are cholesterol esters which are not contained in bile. These esters are contained in foam cells, as in the xanthomatoses. Although the bile cholesterol content varies with the blood cholesterol, cholesterosis of the gallbladder may occur in the presence of normal blood cholesterol values. The mechanism controlling blood cholesterol levels is poorly understood. Thyroid function bears a direct relationship to the blood cholesterol level, but the mechanism is unknown. Liver disease also is a recognized factor. The blood cholesterol consists of an exogenous (ingested) fraction and an endogenous fraction. Feeding a high or low cholesterol diet to normal animals produces only a temporary rise or fall in the blood level. Apparently the enzyme systems involved have a significant capacity to compensate. In the interpretation of the innumerable blood cholesterol determinations in clinical practice, the associated presence or absence of hyperlipemia (milky serum) and xanthomatosis should be considered. Hyperlipemia may have some relationship to right upper quadrant pain, and may be an element in the pseudo-biliary colic of portal cirrhosis. Pregnancy bears some relationship to hypercholesterolemia, and a clear relationship to cholelithiasis, but again the exact mechanisms involved, are not clear. To correlate all the foregoing, and thereby improve

our understanding of cholesterosis of the gallbladder and its dietary treatment is exceedingly difficult. Ideally, clear distinction should be drawn between a low cholesterol diet for cholesterosis and the low fat dietary management of cholecystitis, which influences motor function of the gallbladder and associated obesity. Because such a low fat diet is inherently a low cholesterol diet clinical conclusions are bereft of exactness. In therapy, the low fat, high protein diet is in consonance with recent progress. The high protein factor is added because high protein intake is the most effective natural means of promoting bile flow.

Functional motor disturbances of the common duct sphincter may be productive of pain simulating gallbladder disease ("pseudo cholecystitis"). This syndrome of biliary dyskinesia is dependent upon sphincter hypertonus producing hypertension in the biliary ducts. The secretory pressure of the liver and contractility of the gallbladder furnish the force while the unrelaxed sphincter provides the resistance. The sphincter dysfunction is apparently neurogenic. A close relationship of the sphincter to the duodenum and colon appears to exist. Disappearance of both biliary tract distress and delayed emptying of the gallbladder may follow proper management of the duodenal pre-ulcer syndrome or of an irritable colon. Perhaps the best criterion so far developed for the diagnosis of biliary dyskinesia is prompt relief by nitrite. Organic disease of the gallbladder should be excluded by cholecystography, as the sphincter spasm may be reflex from organic gallbladder disease. It is here that the admonition to avoid giving pathological significance to delayed emptying of the gallbladder has its real importance. Such delayed emptying of a radiologically normal gallbladder is indicative of motor dysfunction of the sphincter and not of cholecystitis. It is possible that the new tetra ethyl ammonium compounds will be of diagnostic value in this group of cases. The major problems arise in those instances of this disturbance where, after unwarranted cholecystectomy, the symptoms progress and nitrites lose their effectiveness, and narcotics are often employed. Surgical relief may be sought. Surgeons have met this problem by anastomosis of the common duct to the duodenum above the sphincter, by cutting the sphincter, or by dilating it. Also the common duct has been stripped to accomplish the equivalent of arterial stripping for ablation of sympathetic nerve fibers. There has been no universal adoption of any of these procedures. Recently there has been a turn toward section of the sensory fibers. These are located in the right and left greater splanchnic nerves. Novocain block of the right splanchnic is known to have given prolonged relief. It has been observed that lesions of the abdominal viscera, such as acute cholecystitis, occur without pain in hypertensive individuals who have undergone splanchnicectomy. This new field may offer much to those few patients who have become invalids from a severe form of biliary dyskinesia or post cholecystectomy syndrome.

Required Reading

Because the underlying strength of reason which alone can prevail against the pressure for state medicine must derive ultimately from a well informed medical profession, attention is called to two periodicals that recently have begun publication to keep physicians abreast of what is being done and what can be done to combat the drive both through public relations and by a strengthening of voluntary medical care plans.

One of these publications is C.M.A. Public Relations News; the other C.P.S. Progress. The former is issued bi-monthly to all C.M.A. members, and the latter is sent quarterly to some 8,600 physician members of C.P.S. The Public Relations News reports activities carried on in C.M.A.'s behalf by its public relations counsel, together with news of pertinent legislation and opinions from other fields of collateral interest. C.P.S. Progress is a source of information to doctors on membership enrollment, finances, management problems, activities of other voluntary medical care plans, the contract for care of veterans of the armed forces, and other phases of C.P.S. operations.

With a grounding in public relations and a knowledge of economic aspects of medical care now so important to doctors in efforts to keep the practice of medicine free of bureaucratic fetters, C.M.A. members owe it to themselves, to their colleagues and to their patients to absorb the information in both publications.

In calling attention to these two periodicals, it should be noted that CALIFORNIA MEDICINE hereafter will give less space to material on the subjects dealt with by them. For that reason, files of both are suggested.

A. M. A. Interim Session

As was expected, the interim session of the A.M.A. House of Delegates was primarily a business meeting. The House has been given so many added responsibilities in recent years that the period allotted for business at the Annual Session has proved to be inadequate.

At the Cleveland interim meeting, held January 5 to 8, the House met for two days and a scientific meeting followed for another two days. Scientific and technical exhibits were shown and the entire scientific program was aimed at benefiting the general practitioner. This is the first such meeting staged by the A.M.A. and editorial opinion appears to indicate a favorable reaction to the scope and purpose of the session.

The biggest boost given the general practitioner at the Cleveland meeting was the award of a gold medal to the outstanding general practitioner of 1947. This award was authorized by the A.M.A. 1947 House of Delegates, the recipient to be chosen by a screening process which took potential candidates through the Section on General Practice and the